W3C WoT
Architecture Task Force
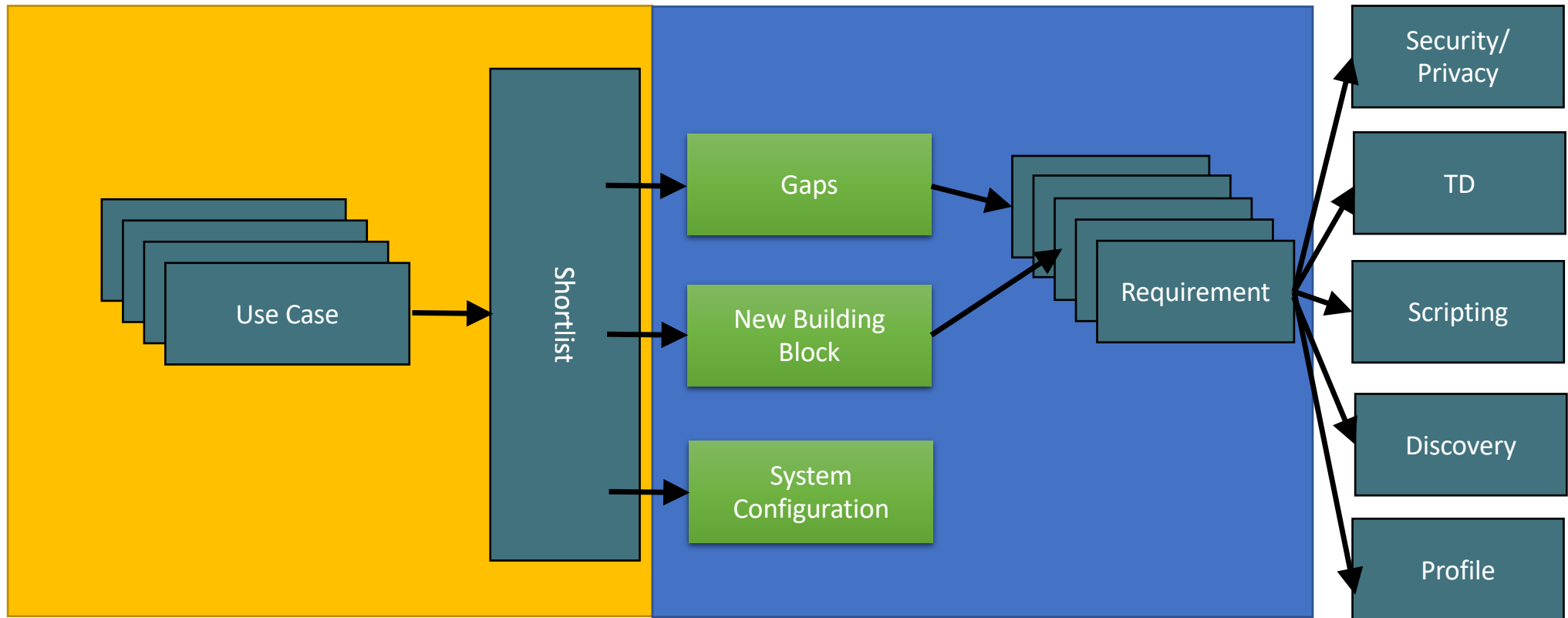
Use Cases

Status + next steps

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Architecture TF work items

- **Requirements, Use Cases, and Vocabulary**
- Requirements of new use cases, architectural patterns, and concepts.

- **Link Relation Types**: Define link relation types between things.

- **Interoperability Profiles:** Plug-and-play interoperabilty via a profile mechanism.

- **Thing Description Templates:** classes of things and an inheritance mechanism, modularisation.

- **Complex Interactions:** Use of hypermedia controls to describe complex interactions and thing behaviour.

- **Lifecycle:**
- Terminology for states and transitions for products, devices, and information.

- **Onboarding:** Define how trust can be established between Things, gateways.

- **Identifier Management:** Mitigate privacy risks by defining how identifiers are managed and updated.

Architecture Discussion Process

Use Cases

- **~20 new use case are in the pipeline, more to come**

- **Active Contributors:**
- Intel, Fujitsu, Siemens, NHK, Singapore Govtech, Conexxus, TU Munich, Oracle

- **Target domains:**
- Smart Cities, Industrial, Transportation, Manufacturing, Logistics, Smart Grids, Home Automation, Healthcare and Medical, Retail, Smart Home

Use Case Categories

Retail

- Integrating and interconnecting multiple devices into common retail workflows.

Audio/Video

- Synchronise Home WoT devices with TV programs.

Agriculture

- Smart Agriculture (Greenhouse Horticulture) to create an optimal environment for growing plants.

Smart City

- Managing mobile devices and sensors in a Smart City
- Interactive Public Spaces
- Meeting Room Event Assistance

Health

- Monitor the health of people in public places to control the spread of infectious diseases.
- Health Notifiers

Manufacturing

- Monitoring production lines and plants and predicting and preventing fault conditions.

Multi-Vendor System Integration

- Analyze physical assets to troubleshoot in real time, predict future problems, minimize downtime, and perform simulations.
- Multi vendor interoperability by communicating across different protocols.

Accessibility

- Audiovisual Devices Acting as Smartphone Extensions
- Unified Smart Home Control and Status

Automotive

- Smart Car Configuration Management

Energy / Smart Grid

- Management of energy distribution and storage

Fleet Management

Data Streaming

Discovery

Use Case Shortlisting

Shortlist Use cases to:

- Make sure the use cases address real market needs

- Make best use of limited resources

- Prioritize use cases that grow the IoT market and WoT adoption

Primary question:

What advantage does the use of WoT bring to spec adopters?

How to prioritize use cases?

- WoT WG/IG members should vote

- Doodle poll?
- W3C questionnaire?

Criteria:

- Is there a champion ?

- Is there a customer ?

- Is there a product ?

Next steps

For each shortlisted use case we need a (one page) requirement document at:

https://github.com/w3c/wot-architecture/tree/master/REQUIREMENTS

Template: https://github.com/w3c/wot-architecture/blob/master/REQUIREMENTS/requirements-template.md

Examples are available

W3C WoT
IG Use Case TF

Objective

- Collect input from a wider IoT market audience

- Scenarios

- Use Cases

- Requirements

- Output:

- IG Group Note